# 34GD5A

## Beam Power Tube

**7-PIN MINIATURE TYPE**

**With Heater Having Controlled Warm-Up Time**

**GENERAL DATA**

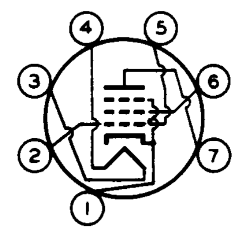
**Electrical:**

| | | |
|---|---|---|
| Heater, for Unipotential Cathode: | | |
| Voltage (AC or DC) | 34 | volts |
| Current | 0.1 ± 6% | amp |
| Warm-up time (Average) | 20 | sec |
| Direct Interelectrode Capacitances (Approx.):[a] | | |
| Grid No.1 to plate | 0.6 | μμf |
| Grid No.1 to cathode & grid No.3, grid No.2, and heater | 12 | μμf |
| Plate to cathode & grid No.3, grid No.2, and heater | 6 | μμf |

**Mechanical:**

| | |
|---|---|
| Operating Position | Any |
| Maximum Overall Length | 2-5/8" |
| Maximum Seated Length | 2-3/8" |
| Length, Base Seat to Bulb Top (Excluding tip) | 2" ± 3/32" |
| Diameter | 0.650" to 0.750" |
| Dimensional Outline | See *General Section* |
| Bulb | T5-1/2 |
| Base | Small-Button Miniature 7-Pin (JEDEC No.E7-1) |
| Basing Designation for BOTTOM VIEW | 7CV |

Pin 1 - Cathode, Grid No.3
Pin 2 - Grid No.1
Pin 3 - Heater




Pin 4 - Heater
Pin 5 - Grid No.1
Pin 6 - Grid No.2
Pin 7 - Plate

**AMPLIFIER — Class $A_1$**

**Maximum Ratings,** ***Design-Maximum Values:***

| | | | |
|---|---|---|---|
| PLATE VOLTAGE | 150 | max. | volts |
| GRID-No.2 (SCREEN-GRID) VOLTAGE | 130 | max. | volts |
| GRID-No.1 (CONTROL-GRID) VOLTAGE: | | | |
| Negative-bias value | 50 | max. | volts |
| Positive-bias value | 0 | max. | volts |
| GRID-No.2 INPUT | 1.1 | max. | watts |
| PLATE DISSIPATION | 5 | max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | | |
| Heater negative with respect to cathode | 200 | max. | volts |
| Heater positive with respect to cathode | 200[b] | max. | volts |
| BULB TEMPERATURE (At hottest point on bulb surface) | 250 | max. | °C |

# 34GD5A

**Typical Operation and Characteristics:**

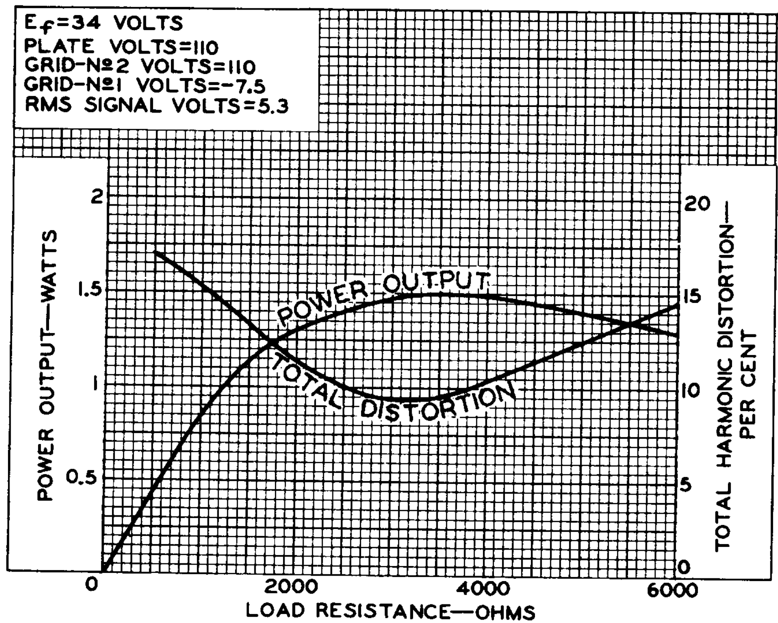
| | | |
|---|---|---|
| Plate Voltage | 110 | volts |
| Grid-No.2 Voltage | 110 | volts |
| Grid-No.1 Voltage | -7.5 | volts |
| Peak AF Grid-No.1 Voltage | 7.5 | volts |
| Zero-Signal Plate Current | 35 | ma |
| Zero-Signal Grid-No.2 Current | 3 | ma |
| Plate Resistance (Approx.) | 13000 | ohms |
| Transconductance | 5700 | µmhos |
| Load Resistance | 2500 | ohms |
| Total Harmonic Distortion | 10 | % |
| Max.-Signal Power Output | 1.4 | watts |

**Maximum Circuit Values:**

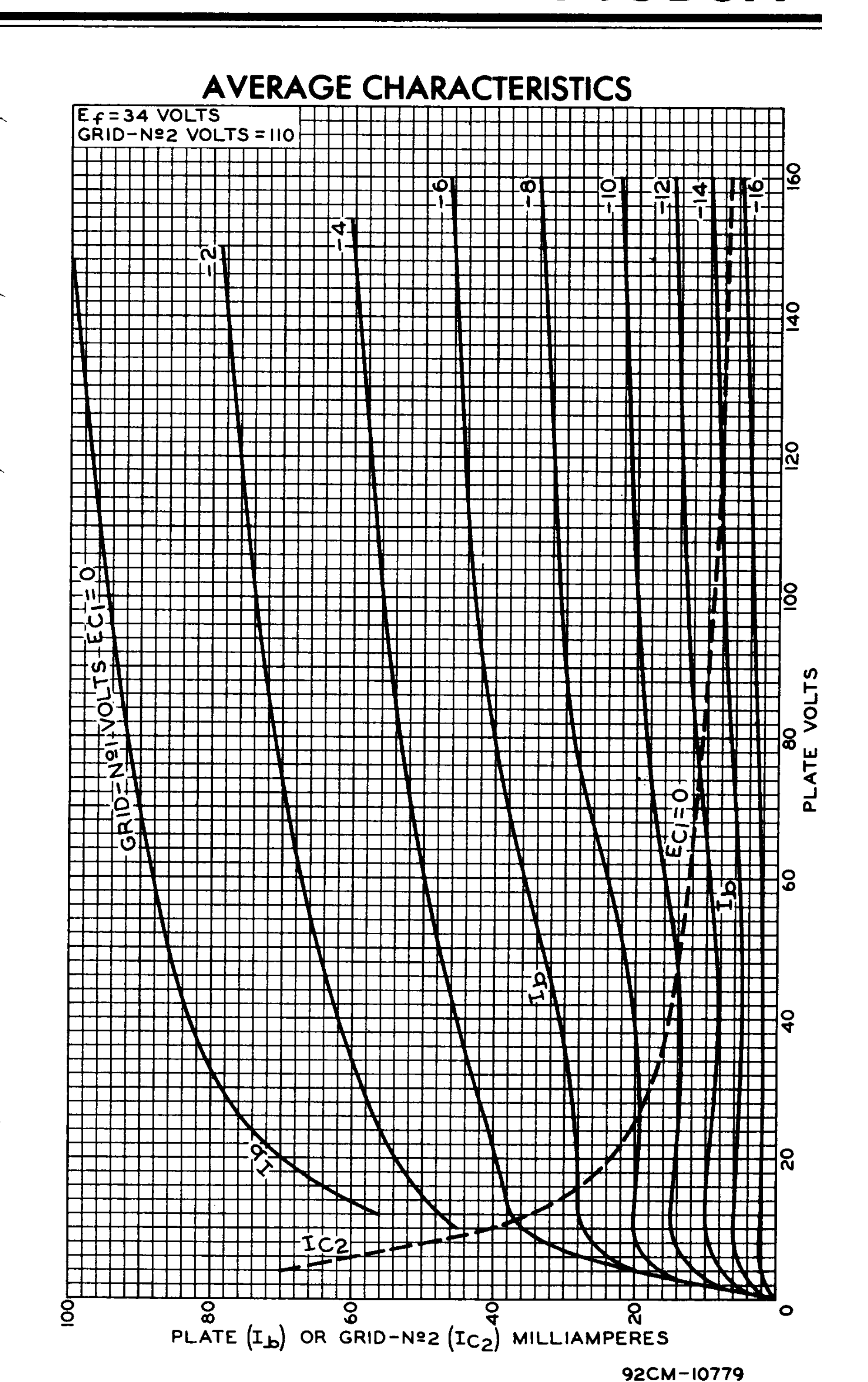
| | | |
|---|---|---|
| Grid-No.1-Circuit Resistance: | | |
| For fixed-bias operation | 0.1 max. | megohm |
| For cathode-bias operation | 0.5 max. | megohm |

[a] Without external shield.
[b] The dc component must not exceed 100 volts.

## OPERATION CHARACTERISTICS




92CS-10780


AVERAGE CHARACTERISTICS
Ef=34 VOLTS
GRID-Nº2 VOLTS=110
GRID-Nº1 VOLTS-EC1=0
-2
-4
-6
-8
-10
-12
-14
-16
EC1=0
Ib
IC2
PLATE VOLTS
PLATE (Ib) OR GRID-Nº2 (IC2) MILLIAMPERES
92CM-10779